

Title (en)

MEMBRANE SUPPORT ASSEMBLY FOR AN ENERGY EXCHANGER

Title (de)

MEMBRANHALTERUNGSANORDNUNG FÜR EINEN ENERGIETAUSCHER

Title (fr)

ENSEMBLE DE SUPPORT DE MEMBRANE DESTINÉ À UN ÉCHANGEUR D'ÉNERGIE

Publication

EP 3421921 B1 20200304 (EN)

Application

EP 18153408 A 20130626

Previously filed application

PCT/CA2013/000609 20130626 WO

Priority

- US 201261692793 P 20120824
- US 201361774184 P 20130307
- US 201313797062 A 20130312
- EP 13830940 A 20130626
- CA 2013000609 W 20130626

Abstract (en)

[origin: US2014054004A1] A membrane support assembly is configured to be used with an energy exchanger, and is configured to be positioned within a fluid channel between first and second membranes. The assembly may include at least one support member configured to span between the first and second membranes, wherein the support member(s) is configured to support the fluid channel, and at least one turbulence promoter connected to the support member(s). The turbulence promoter(s) is configured to promote fluid turbulence within the fluid channel. The fluid turbulence within the fluid channel enhances energy transfer between the fluid channel and the first and second membranes.

IPC 8 full level

F28F 13/12 (2006.01); **F24F 12/00** (2006.01); **F28F 3/08** (2006.01); **F28F 9/007** (2006.01)

CPC (source: EP US)

F24F 3/1417 (2013.01 - EP US); **F24F 3/147** (2013.01 - EP US); **F28D 15/00** (2013.01 - EP US); **F28D 21/0015** (2013.01 - EP US); **F28F 9/007** (2013.01 - EP US); **F28F 13/12** (2013.01 - EP US); **F24F 2003/1435** (2013.01 - EP US)

Cited by

US11892193B2; US11300364B2; US11598534B2; US10928082B2; US11761645B2; US11035618B2; US11732972B2; US12111072B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2014054004 A1 20140227; AU 2013305428 A1 20150219; AU 2013305428 B2 20180607; AU 2018226496 A1 20180927; CA 2880353 A1 20140227; CA 2880353 C 20200908; CN 104541122 A 20150422; CN 110345803 A 20191018; DK 2893284 T3 20180522; DK 3421921 T3 20200406; EP 2893284 A1 20150715; EP 2893284 A4 20160803; EP 2893284 B1 20180131; EP 3421921 A1 20190102; EP 3421921 B1 20200304; IN 892DEN2015 A 20150612; WO 2014029004 A1 20140227

DOCDB simple family (application)

US 201313797062 A 20130312; AU 2013305428 A 20130626; AU 2018226496 A 20180907; CA 2013000609 W 20130626; CA 2880353 A 20130626; CN 201380042926 A 20130626; CN 201910516006 A 20130626; DK 13830940 T 20130626; DK 18153408 T 20130626; EP 13830940 A 20130626; EP 18153408 A 20130626; IN 892DEN2015 A 20150204